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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/775,357	02/01/2001	Pertti Saarinen	915-384	8133

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WARE FRESSOLA VAN DER SLUYS &  
ADOLPHSON, LLP  
BRADFORD GREEN BUILDING 5  
755 MAIN STREET, P O BOX 224  
MONROE, CT 06468

EXAMINER

NELSON, ALECIA DIANE

ART UNIT	PAPER NUMBER
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2675

8

DATE MAILED: 04/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/775,357

Applicant(s)

SAARINEN, PERTTI

Examiner

Alecia D. Nelson

Art Unit

2675

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 30 January 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 7-18,41-43 and 45-48 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 7-18,41-43,45-48 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Drawings*

The drawings were received on 1/30/04. These drawings have been approved by the examiner.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 7-10, 18, and 41-43** are rejected under 35 U.S.C. 103(a) as being unpatentable over Ali et al. (U.S. Patent Application Publication No. 2002/0140675) in view of Sasaki et al. (U.S. Patent No. 5,396,301).

With reference to **claims 7-10, 18, and 41-43** Ali et al. teaches a display (740) an orientation sensitive interface mechanism (800) operable in first and second modes corresponding to respective first (landscape) and second orientations (portrait) of the display; selection means (820) for selecting operation of the orientation sensitive interface mechanism in the first or second mode; and orientation sensing means (950) for determining an orientation of the display, wherein the orientation sensing means

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comprises a display mode sensor responsive to a display mode control signal indicative of a display mode for an image for display by the display apparatus (see column 7, lines 2-20).

Ali et al. fails to specifically teach that the orientation sensing means automatically activates the selection means in accordance with the sensed orientation and display mode. However it is taught that one or more manual switches, buttons or display icons may be actuated or otherwise selected to manually set the orientation of the display (see abstract). It is also taught it is possible for the one or manual switches, buttons, or display icons on the portable device can override the tilt sensor, allowing the display to be presented in a different mode (see page 9, paragraph 0089). Ali et al. also fails to specifically teach providing a stereophonic image or the usage of a loudspeaker arrangement including only three loudspeakers wherein the first or second loudspeaker pair is selected in accordance with an orientation of the display.

Sasaki et al. teaches a video projector with a monitor screen wherein the housing includes left (42L) and right (42R) stereo speakers disposed at forward and rearward positions on either side of the monitor screen (16). Another speaker (44R), capable of serving as a right speaker, is disposed on the second side surface of the housing (10) opposite the first side surface where the monitor screen (16) is provided (see column 4, lines 49-55). It is further taught that determination is made as to whether the video projector with a monitor screen is in monitor mode or projector mode on the basis of the detection output of the lens cover detection switch (62). If the apparatus is in monitor mode the left (42L) and right (42R) speakers positioned on either side of the monitor

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screen (16) are actuated, whereas if the apparatus is determined to be in projector mode, the left (42L) and right (44R) speakers positioned on either side of the projection lens (30) are actuated. By virtue of the arrangement, it is possible to generate stereo sound in accordance with the type of mode currently effected (see column 6, lines 35-56).

Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention to allow the three speaker arrangement wherein an active speaker pair is selected based on the desired mode of operation as taught by Sasaki et al. to be included in the device of Ali et al. to allow for the orientation of the display to automatically activate the selection means, which is used to select a desired mode of the display, as it is suggested that the selection means has the ability to override the current mode to which the display is currently placed to place the display in a different mode. This allows the user the ability to be able to continuously have optimum sound output from the device according to the mode of the display being determined by the orientation of the display device, based on the usage of the selection means, or the combination of both thereby providing a plurality of choices for switching modes, which would make control of the device more convenient and simplified for the user, especially in situations wherein the usage of the selection means is inconvenient.

With reference to **claim 18**, Ali et al. teaches that the portable device does contain speaker (772) and a speaker driver (770) (see figure 7).

Ali et al. fails to specifically teach that the orientation sensitive interface mechanism includes a speaker arrangement wherein the selection means it operable to select first or second loudspeaker pair for operation in the first or second mode. Sasaki et al. teaches the usage of the first, second, and third loudspeaker as explained above, however fail to mention the usage of speaker drivers for each speaker.

However, it would be obvious to one having ordinary skill in the art at the time of the invention to allow for the speaker arrangement as taught by the conventional art to allow a speaker driver for each speaker, as taught by Ali et al. in order to provide the user with optimum and suitable stereophonic reproduction in the display apparatus.

**Claims 11-17 and 45-48** are rejected under 35 U.S.C. 103(a) as being unpatentable over Ali et al. in view of the Applicant's admittance of known art as applied to **claims 7 and 41** above, and further in view of Derocher et al. (U.S. Patent No. 6,078,497).

With reference to the claims neither Ali et al. nor the known art disclosed by the applicant teach or suggest a stereo extension means to widen the stereophonic image produced by the first and second speakers or that the circuitry is operable to introduce a phase delay (between the right and left speaker signals. However the usages of a phase delay of signal is well known in the art, and would also be obvious to include such delay in order to prevent a lag in sound produced between the right and left speakers.

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Derocher et al. teaches a portable electronic device having a first and second speaker assembly wherein the speaker assemblies are capable of being in a normal position or an extended position. It is also taught that the first and second speaker chambers each have a larger volume when the speaker assemblies are in the extended position than when they are in the normal position (see abstract, column 2, line 59-column 3, line 43).

Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention to allow for such an extension arrangement as taught by Derocher et al. to a portable device similar to that which is taught by Ali et al. and the known art as disclosed by the applicant in order to thereby provide a speaker arrangement for a portable device wherein the device is capable of providing improved high quality sound without having to increase the size requirements of the speakers, which would thereby increase the size of portable device, thereby making the device more bulky.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within

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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alecia D. Nelson whose telephone number is (703) 305-0143. The examiner can normally be reached on Monday-Friday 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve Saras can be reached on (703) 305-9720. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ADN/adn  
April 19, 2004

  
4-19-2004